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ABSTRACT

This is an interim report of a special program to assist newly-arrived immigrant children from the Punjab in India. It describes a homogeneous class enrolling twenty pupils, all of East Indian origin and between five and eight years of age. The teacher of the Punjabi-English class kept an extensive anecdotal record of the growth and development of her students. An observation of the class was made by an educational psychologist to provide an external objective audit of the pupils' accomplishments. Various tests were administered to the experimental class and a control group of matched East Indian children. The findings showed that the special class appeared to be promoting the personality development of its pupils, particularly in social skills and oral expression. The program achieved its objective of developing in pupils sufficient facility in English so that more than one-half of them merited placement in regular primary classes. The report presents seven recommendations for the extension and further evaluation of the program.
(Author/BB)

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RESEARCH REPORT

Evaluation of the Punjabi-English Class at the Moberly Primary Annex for the 1972-73 School Year.

RESEARCH REPORT 73-20

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AUGUST, 1973

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EVALUATION OF THE PUNJABI-ENGLISH CLASS AT THE MOBERLY PRIMARY ANNEX FOR THE 1972-1973 SCHOOL YEAR

August, 1973.

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Janet L. Moody

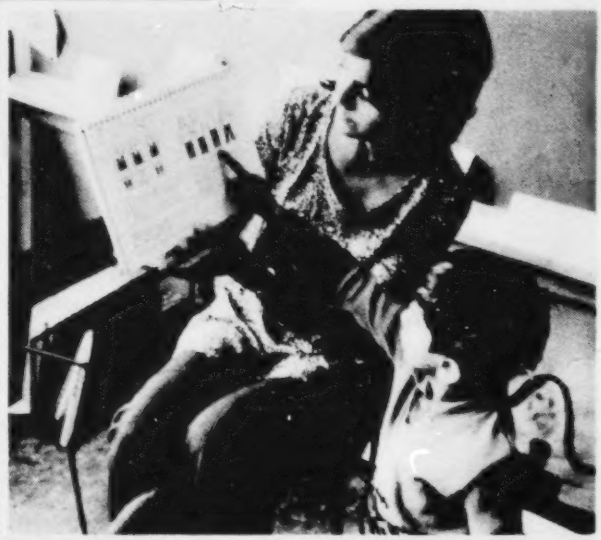
E. Norman Ellis

Research Report 73-20

THE 'BUDDY' SYSTEM

DISTAR LANGUAGE TRAINING

PUPILS, TEACHER AND AIDE IN THE CLASSROOM



COOPERATIVE LEARNING

EVALUATION OF THE PUNJABI-ENGLISH CLASS AT THE MOBERLY PRIMARY ANNEX FOR THE 1972-1973 SCHOOL YEAR

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Abstract

This is an interim report of a special program to assist newly-arrived immigrant children from the Punjab. It describes a homogeneous class enrolling twenty pupils, all of East Indian origin and between five and eight years of age. The class was under the direction of an East Indian teacher who was free to use Punjabi to explain any concept when she felt this was desirable. Throughout the year there was a careful documentation of the progress made by these pupils. Their language development was compared with that of East Indian pupils in regular classes. The evaluation of the program attempts to assess the extent to which its objectives were achieved.

Fifteen pupils in the original group of twenty remained as members of the class for the entire school year. The group's average attendance was 97%, which was considerably higher than that for other classes at Moberly Primary Annex. On the other hand, children in the Punjabi-English class were late slightly more often than the school average.

Samples of work that had been filed in pupils' folders throughout the year indicated progress, particularly in printing skills and in artistic ability. Tape recordings of conversations also revealed the marked improvement that pupils had made in oral expression throughout the year. The teacher's notes indicated that the pupils had made significant gains in social skills, in English, printing, reading, and arithmetic.

Ten pupils had made sufficient progress in English to merit assignment to a regular primary class by September, 1973.

The evaluation by an objective observer indicated the great improvement in English that had been made throughout the year.

The performance of pupils in the experimental class was compared with that of a control group of matched East Indian children. There was no difference between the performance of the two groups on three performance tests but the control group scored significantly higher on the Columbia Mental Maturity Scale.

There was no difference between the two groups in gains in self-concept but the experimental group had the higher mean score in February and in May.

In terms of vocabulary development, the experimental group consistently had lower scores than the control group, but made larger gains throughout the school year.

The conceptual development of members of the experimental group was not significantly greater than that for their controls, except for their superior ability to enumerate details in a picture.

When progress in reading was assessed, no difference was found between the performance of experimental and control groups except in comprehension where the control pupils excelled.

The Punjabi English class appeared to be providing a good learning environment for newly arrived immigrant children from the Punjab. The bilingualism of the teacher, her patient understanding of the pupils' problems, the smaller class size, the assistance of a volunteer-aide, and the special materials and equipment facilitated the greater provision for individual differences.

The class appeared to be promoting the personality development of its pupils, particularly in social skills and oral expression. The program achieved its objective of developing in pupils sufficient facility in English so that more than one-half of them merited placement in regular primary classes by September, 1973.

The report presents seven recommendations for the extension and further evaluation of the program.

EVALUATION OF THE PUNJABI ENGLISH CLASS AT THE MOBERLY PRIMARY ANNEX FOR THE 1972 - 1973 SCHOOL YEAR

I. INTRODUCTION

During recent years there has been a large influx of East Indian immigrants into Western Canada. Those that have come to Vancouver have tended to settle in the Southern Slope district. The schools in this area have the highest concentration of East Indian children of any schools in Vancouver. In Sir Walter Moberly Primary Annex where this study was undertaken, approximately 25% of the population is East Indian.

The East Indian children commonly experience considerable difficulty in school. In a survey it was found that:

- approximately 25% were one-year behind in their grade placement,
- another 15% were two or more years behind, and
- only 51% were considered by their teachers to be making satisfactory progress. (Moody, 16, p. 1)

Many of the problems encountered by these pupils are related to differences in cultural background, lack of comprehension of the English language, and, for those who have emigrated from the impoverished villages in India, the inadequacy of previous schooling. Accordingly, these children have three special needs: assistance in adjusting to the Canadian way of life, extra help with English and a good instructional program. For those pupils over eight years of age, these needs have largely been met in the Vancouver school system in special English classes for New Canadians. Younger pupils have been placed in regular primary classes where they were expected to acquire facility in English through their verbal exchanges with classmates and teachers. However, these expectations have not been realized with the East Indian children. They have been slow to assimilate, they have had difficulty learning the English language, and they have been receiving below-average grades.

With these problems in mind, the East Indian Khalsa-Diwan Society met with personnel from the School Board, Moberly School, the University of British Columbia, and the Metropolitan Health Board to organize an enrichment program whose basic aim was to further the language development of East Indian children. The program was operated during the summer of 1971. (A detailed description of the program may be found in "An Evaluation of the Khalsa-Diwan Moberly Educational Program, 'Under the Mango Tree' ". Vancouver, Summer 1971, by J. L. Moody).

The summer program generated a favourable reaction. It prompted parents, teachers and members of the Khalsa-Diwan Society to propose that such a program be integrated into the regular school setup, so that language-deprived children might receive additional help during the school year as well. The proposal suggested that consideration be given to employing for these pupils a teacher who was bilingual in Punjabi and English.

The Education and Student Services Committee considered the proposal of the Khalsa-Diwan Society and reviewed the report (and evaluation) of the summer program. The Committee agreed that it was desirable to continue the program and drafted a recommendation for the Board's consideration.

In the fall of 1971 the Vancouver School Board passed the following recommendation:

> IT IS RECOMMENDED that the School Board establish, for a period of at least three years, an experimental class for East Indian children where the language of instruction will be both Punjabi and English. The language development of pupils in this class should be carefully evaluated and compared with that of East Indian pupils in regular classes.

As a result of this recommendation, the Education Department established a committee to develop the educational program for an experimental class in the Southern Slope Area of Vancouver. (See Appendix A). The committee reviewed the learning opportunities for East Indian children in this area and proposed the establishment of a primary New Canadian class at Moberly Annex that would be a 'family grouping' of fifteen to twenty East Indian pupils ranging in age from five to eight years. The class would be under the direction of a teacher of East Indian origin who could use the mother tongue (Punjabi) as well as English when required. She would be assisted by a volunteer aide.

During the Spring and Summer of 1972 preparations were made for the opening of the class:

1. Mrs. S. S. Sandhu, a teacher on the staff of Moberly School who was bilingual in English and Punjabi, was selected to teach the new class and by way of preparation took the course, "Teaching English as a Second Language" at the University Summer Session.

2. The Principal requisitioned special materials, books and equipment including the Peabody Language Development Kit (Level P), the DISTAR Language I materials, a "Language Master", a kit of "Innovative Learning Materials", the Miami Linguistic Readers, a "Listening Post" and a tape recorder.

3. The Principal, the Annex Head and the teacher prepared a nominal roll of class members. The group included:
   - seven pupils who had attended kindergarten for part or all of the 1971-72 school year,
   - one small boy who had spent two years in kindergarten,
   - seven pupils who had attended a class for New Canadians during the previous school year, and
   - four other pupils who were new arrivals from the Punjab.

4. Two psychological examiners from the Vancouver School Board, Miss Janet Moody and Mr. Ken Grant, administered individual tests to these pupils.

5. Preparations to evaluate the program were made by the Department of Planning and Evaluation.

The following objectives were formulated for the program:

(1) To demonstrate the viability of this learning environment and resource allocation for the learning of English by newly arrived immigrant children from the Punjab.
(2) To facilitate greater provision for individual differences in needs, learning style and learning rate.
(3) To improve the self-concept of each child and to promote his personality development.
(4) To improve the level of human-interaction among these children and to foster supportive (rather than hostile) relationships.
(5) To develop in pupils a level of facility in English so that at least one-half of them would merit assignment to a regular primary class by September, 1973.
(6) To enhance the pupils' understanding and appreciation of Canadian culture without detriment to their esteem of East Indian culture.

It is the purpose of this study to determine the extent to which each of these objectives is being realized; i. e. the investigation will attempt to supply answers to the following questions:

(1) What evidence is there that newly arrived immigrant children from the Punjab make satisfactory progress in a Primary New Canadian class for East Indian children taught by a bilingual teacher?
(2) How does their achievement compare with that of other pupils of similar background who are placed in regular classes?
(3) How does this special class make greater provision for individual differences?
(4) Does this class serve to develop a better self image in its members?
(5) What evidence is there of personality development among pupils in the class?
(6) Is there any indication that the class serves to stimulate verbal communication and to encourage friendly interaction among pupils?
(7) What is the evidence of the social development of pupils? Do they tend to be amicable rather than hostile toward their peers?
(8) How many of the pupils have developed facility in English so as to merit placement in a regular primary class by September, 1973?
(9) What evidence is there of the pupils' assimilation into the Canadian culture?
(10) What evidence is there that the pupils' appreciation of East Indian culture is being maintained?

The study will be limited to the primary class of Punjabi New Canadians at the Moberly Annex. There is no evidence to support a claim that this class is, in any way, representative of New Canadian classes. Accordingly, it is hazardous to attempt to generalize the findings.

The study is restricted to the first (1972-73) school year and its conclusions should be interpreted in terms of conditions existing at that time. Since the class is to operate "experimentally for at least three years," the present findings should be regarded as interim and tentative.

The study is limited by the validity of the measurement instruments used in this context and by the adequacy of the statistical tests. Some of the instruments attempt to provide a quantitative description of concepts and attitudes; - at best, they are crude, approximate and incomplete. The reader is cautioned to interpret conservatively the results derived from these tests.

II. REVIEW OF THE LITERATURE

The question of the effect of bilingualism on children is highly controversial. Some researchers (Jensen 10, p. 135) claim that the bilingual child may become handicapped in his intellectual development, becoming mentally uncertain and confused because of his tendency to think in one language and speak in another. It is claimed that such a child will also be handicapped in respect to speech development (Lynn 14), language development (Smith 22), and educational progress (Jensen 10, pp. 135-136), and that he may develop serious emotional instability and social maladjustment:

> After being exposed to a second language in school, the child may develop a sense of shame and guilt regarding the language of his family and may direct this into feelings of arrogance, contempt, hatred, rejection, and avoidance toward his parents. He may regard his parents as reactionary, impractical, ineffective, and unpatriotic; whereas his parents may consider him to be disrespectful toward his superiors and his cultural heritage. The child may compare his parents unfavorably with other parents who speak better and may feel ashamed to bring home his playmates. (Jensen 10, p. 136)

Other researchers flatly deny these claims and argue that, on the contrary, bilingualism aids the intellectual development of the child (Jones 11), increases vocabulary (Totten 24), furthers educational development (Carrow 4; Marshall and Phillips 15; Smith 21), and creates a better adjusted child (Weinreich 25, p. 121). According to many investigators, much of the misconception linking childhood bilingualism with intellectual impairment originated from low scores on intelligence tests which relied upon language facility. Scholars assert that, "whatever maladjustment is present is likely caused not by bilingualism but by immature emotional constitutions, excessive family tensions, or by sociological considerations, such as being in an inferior social status group or by having poor teachers and schools". (Jensen 10, pp. 360-361).

Little research is available on the effects of using a native language in the teaching of English as a second language. The only conclusion that can be drawn is that the teacher must decide in each instance whether translation in instruction will be likely to do more good than harm. If translation is likely to lead the student to substitute concepts or syntax from the native language for a true understanding of the second language, then translation may be harmful. If, on the other hand, the point in question is so difficult to grasp that the student is not likely to understand it without translation, then translation may do more good than harm.

Should young foreign immigrants be placed in "special classes" for instruction in English, or in regular classes with special instruction being incorporated into their program daily? Several investigators have been concerned with this question. Klyhn (12) felt that placing a young child in an isolated environment to learn English did not make maximum use of resources but that it served to isolate a large group of non-English speakers and reduce language exposure. He favoured incorporating the students with language difficulties into regular classes, and providing a "listening corner" where children could listen to tapes, aided,if necessary, by an English child-tutor. Stoddart, et al, (22) suggested that young children (ages 5 to 7) would probably need little special teaching to help them speak English, if they were enrolled in a class where "activity" methods were employed and where the children worked together in small groups. The researchers noted, however, that older pupils (ages 7 to 11) were often placed in structured classes with less student-student and student-teacher interaction. In this case, a special class for English instruction was felt to be necessary.

Reid and Guinet (20) reported that the most common method of assisting non-English speaking pupils in Vancouver during the last few years has involved removing children from their regular classes for periods of time and having a "Primary New Canadian Resource Teacher" work with them in groups.

III. EVALUATION PROCEDURES

1. Evaluation by the Teacher

The teacher of the Punjabi-English class kept a record of attendance and punctuality of the pupils, noted any changes in membership with the dates of "transfers-in" and "transfers-out".

The teacher kept a folder for each pupil into which work samples were placed throughout the year.

Tape-recordings were made periodically throughout the school year to document improvement in spoken English.

The teacher kept an extensive anecdotal record of the growth and development of her class members. Her notes include comments about health, physical development, social skills, self-care, oral expression, written work, reading ability, arithmetic skills, art work and musical aptitude.

2. Transfer of Class Members into Regular Primary Classes

The proportion of the original group that developed facility in English to the point that they merited placement in a regular class was used as a measure of the success of the program.

3. Evaluation by an Objective Observer

Miss Janet Moody, educational psychologist, observed the class at regular intervals throughout the year in order to provide an external objective audit of the accomplishments of the pupils.

4. Comparison with a Control Group

(1) Selection of the Control Group
East Indian children in primary classes of other schools on the Southern Slope, (e.g. Moberly, Fleming, Henderson, Henderson Annex, South Hill and Sexsmith), were selected individually to match members of the experimental class on the basis of age, sex and length of residence in Canada.

(2) Measures of Scholastic Aptitude
The traditional tests of mental ability were not considered appropriate for this study. In their place, the researchers selected two non-verbal instruments in which the cultural component is reduced.

(a) The Arthur Point Scale of Performance (1)
This scale is considered to be reasonably suitable for cross-cultural testing. Only three subtests were given:
Porteus Mazes
Knox Cube Test, and
Seguin Form Board.
The Healy Picture Completion Test was rejected because of its culture-loaded and old-fashioned pictures. The Stencil Design Test was judged to be too difficult.

(b) The Columbia Mental Maturity Scale (3)
This is an individual mental ability test that requires no verbal response and a minimum of motor response. It is particularly suitable for use with young children who have difficulty with language. The pupil is required to select from a series of drawings the one which does not belong.

Both of these instruments were administered individually by educational psychologists to members of both experimental and control groups.

(3) Measurement of Self-Concept.
The Pictorial Self-Concept Scale for Children (2) was selected as an appropriate instrument to discover how young children regard themselves. The test consists of fifty line drawings depicting typical situations in the life of a young boy or girl. One child represented in each drawing is "starred" and the pupil is asked to indicate whether the "starred" child is "like me", "not like me", or "sometimes like me". Each item has a scale value and the resulting score is purported to be a measure of self-concept.

The Pictorial Self-Concept Scale was administered by the educational psychologists to members of both experimental and control groups in February, 1973[1] and again in late May, 1973.

(4) Measurement of Vocabulary Development.

(a) The Peabody Picture Vocabulary Test (5) was selected for several reasons:
- the pictorial content is attractive for primary pupils,
- the directions are simple for young children to follow,
- there is no time limit,
- the test is easily administered and scored, and
- the 150 items cover a wide range of difficulty.

The Peabody Picture Vocabulary Test was administered by the psychological examiner individually to pupils in both groups early in the Fall term and again in late May, 1973.

(b) The Vocabulary Test of the Stanford-Binet Intelligence Scale.
The Stanford-Binet (20) is the most widely used individual test of mental ability and the vocabulary items contribute more to the scale than any other subtest. The vocabulary test employs a list of 45 words carefully graded in difficulty. The pupil is asked what each word means until six consecutive words have been failed.

This test was administered by the school psychologist individually to pupils in both groups early in the Fall term and again in early May, 1973. The score is the number of words whose meaning is known to the pupil.

(c) The Word Recognition subtest of the Gates-MacGinitie Readiness Skills Test (7), given in May to nine members of Experimental group and to their matched controls, and

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[1] The pre-testing was postponed until February because of an unfortunate delay in obtaining the test materials.

(d) The Vocabulary subtest of the Gates-MacGinitie Reading Test, Primary A, (6) given in May to six members of the experimental group and to their matched controls, were additional measures of vocabulary development.

(5) Measurement of Conceptual Development.

(a) The Goodenough Draw-a-Man (9) test has been extensively employed in testing different cultural and ethnic groups. The child is simply instructed to "make a picture of man; make the very best picture that you can". In scoring the performance, emphasis is placed upon the child's accuracy of observation and upon the development of conceptual thinking rather than upon artistic skill.

The Draw-a-Man test was administered by the educational psychologist individually to pupils in both groups early in the Fall term and again in late May, 1973.

(b) Response to Pictures, Stanford-Binet Intelligence Scale (20). Two pictures, Grandmother's Story, and Wash Day, are presented in order to the pupil. For each one, the child is told by the examiner to "look at this picture and tell me all about it". The responses are scored in terms of enumeration of objects in the picture, description of elements in the picture, and interpretation of the meaning of the picture.

This test was administered individually to pupils in both groups early in the Fall term and again in late May, 1973.

(6) Progress in Reading

(a) Nine members of the experimental group were judged not to be ready for a formal reading test, so they and their matched controls were given in June, 1973, the Gates-MacGinitie Readiness Skills Test (7) which was designed for use at the end of kindergarten or at the beginning of Grade 1. The instrument has eight subtests:

Listening Comprehension	Letter Recognition
Auditory Discrimination	Visual-Motor Coordination
Visual Discrimination	Auditory Blending
Following Directions	Word Recognition

(b) In June, 1973, the remaining six pairs of experimental and control pupils were given the Gates-MacGinitie Reading Test (6), Primary A, Form 1, intended for use in the first grade. It has two subtests:

- The Vocabulary Test samples the child's ability to recognize or analyze isolated words.
- The Comprehension Test measures the child's ability to read and understand whole sentences and paragraphs.

IV. EVALUATION FINDINGS

1. Evaluation by the Teacher

(a) Class Membership

The total number of pupils who were class members during the year was twenty-five. During the year, there were five who transferred into the class, one was "promoted" into a regular primary class and four others moved away. Of the original twenty pupils in September, there were fifteen who remained as class members for the entire school year. These fifteen pupils constituted the experimental group.

(b) Attendance

The fifteen pupils together were absent 86 days. This represents an attendance of 97.0% and it compares favourably with the 94.3% attendance for the 1972-73 school year reported on Form I for Moberly Primary Annex.

(c) Tardiness

The fifteen pupils together were late 100 times; an average of 6.7 "tardies" per pupil. This is somewhat more than the average. The teacher explained that in comparison with Western tradition, the East Indian culture doesn't ascribe as much importance to time considerations. She added that in India pupil misbehaviour was modified by physical punishment and that her pupils were not yet accustomed to more humane forms of discipline and accordingly their habits of tardiness had persisted.

(d) Work Samples

One of the writers made a careful examination of work samples that were filed throughout the year. Since most of the work in the folders was of a varied nature and was undated, it was difficult to draw conclusions about changes during the year. In general, however, the quality of the work was in line with the teacher's comments on her monthly progress report. There seemed to be an improvement in printing skills overall (formation of letters) and in the pupils' ability to draw people.

(e) Oral Expression

Tape recordings of conversations with the East Indian children made throughout the year revealed that the pupils had made a marked improvement in oral expression by the end of the school year.

In October of 1972, Miss Joan Porteous, a volunteer aide, conducted interviews with the children in which she tested their knowledge of colours and encouraged them to talk about their families. For the most part, the pupils responded with one-word answers; slurred speech was common. The pupils' hesitancy to speak may have been due to the fact that they did not yet feel at ease with Miss Porteous.

Shortly after Christmas, Mrs. Sandhu quizzed the children. Here

the pupils were more eager to talk, and they responded in sentences to questions about their Christmas activities. Slurred speech was not as evident; language was more colourful. All the pupils responded extremely politely ("Yes, Mrs. Sandhu"). The speech of one child was barely distinguishable from that of a child of Canadian background. (This pupil was transferred to a regular Grade 1 class during February).

The final tape was recorded during June, 1973, and captured the children's impressions of their trip to McDonald's (of hamburger fame) and of an East Indian luncheon given for committee members involved in the Punjabi-English study. Sentence structure had improved, but difficulties with verb tenses were common. The pupils were using descriptive adjectives to a greater degree, and were paying more attention to the proper use of personal pronouns. (Giggling in the background was heard whenever a pupil made a mistake, e.g. "I showed he how to eat.")

(f) Teacher Evaluation of Pupils' Progress

The teacher of the experimental class evaluated the social growth of each pupil, using a rating scale from "extremely shy" (5) to "extremely outgoing" (1). The mean rating given to pupils in October was 3.9; in June it was 2.1. The difference between these two means was significant at the .01 level.

The teacher's evaluation of oral expression employed a five-point scale ranging from "complete inability to speak English" (5) to "fluency in English (1). The mean rating in October was 3.9; in June, 1.7. The difference between these ratings was significant at the .01 level.

The teacher's evaluation of the pupils' written work was rated on a five-point scale from "inability to print" (5) to "good printing skills" (1). The mean rating in October was 2.9; in June, 1.7. The difference was significant at the .02 level.

The reading ability of the pupils was rated by the teacher on a five-point scale ranging from "inability to recognize words" (5) to "the attainment of a Grade 1 reading level" (1). The mean score in October was 4.1; in June, 2.3. The difference between these means was significant at the .01 level.

The teacher's rating of arithmetic employed a five-point scale ranging from "inability to count or recognize numbers" (5) to "ability to add and subtract numbers to 20" (1). The mean score in October was 3.5; in June, 1.8. The difference was significant at the .01 level.

The results reported above represent a summary of the anecdotal comments made by the teacher. Notations about the growth and development of individual pupils provided useful information about each pupil's progress. These records will be used in making greater provision for individual differences and in the curriculum planning for next year.

2. Transfer of class members into regular primary classes

One of the principal objectives of this program was to develop in pupils a level of facility in English so that at least one-half of the class members would merit assignment to a regular primary class by September, 1973. One pupil had made sufficient progress by February, 1973, to enable him to be transferred into a regular class at that time. Of the fifteen pupils who remained in the special Punjabi-English class for the entire year, nine were promoted to a regular primary class in September, 1973. Two of the fifteen were transferred to a learning assistance class. The other four pupils will remain in the special New Canadian class for East Indian children.

It would seem that the objective outlined above has been attained in that ten of sixteen class members (62.5%) have made sufficient progress in English to merit assignment to a regular primary class by September, 1973.

3. Evaluation by an objective observer

Throughout the year, one of the writers spent short periods in the classroom in order to observe the progress being made by the children in the Punjabi-English class.

At the beginning of September there was a good deal of Punjabi being spoken in the class, between the teacher and students and among the students themselves. The children, although many were still shy, seemed happy and involved in their work. They were at this time actively engaged in social skills and had mastered the appropriate use of "please" and "thank you".

In mid-October the class was observed during a Peabody Language Development lesson which involved colours. One could see a definite improvement in listening skills and the pupils responded in sentences. They appeared highly interested in the lesson and were most anxious to participate. The "Language Master" was also being used. In terms of integration, it was interesting to note that three of the boys were participating in an all-school after-hours game program. Also, all but three of the children ordered hot dogs on "Hot Dog Day", although meat is not usually a part of the East Indian diet. In November the class was observed in a gymnasium program of music and action. All the children actively attempted to assimilate their actions and verbalizations. In the classroom, work was being done with auditory discrimination skills. Certain sounds, such as "s" and "aw", were presenting difficulties to some pupils. During the course of the afternoon the children discussed food. Here the value of the East Indian teacher was clearly evident, as she, familiar with the children's culture as well as their language, could help them quickly to understand the similarities and differences between the Indian and Canadian cultures.

Christmas was a happy and interesting time. For many of the pupils it was their first Christmas experience and they were thrilled. In January, the listening and speaking part of the program was broadened to include beginning reading and written work. The children were most enthusiastic. At this time, there was no Punjabi spoken in class -- only English.

In the following months, one could see the children progressing in reading, arithmetic and printing as they engaged in activities to strengthen fine motor skills. Their drawings of themselves, which were hanging on the walls of the room, indicated an improvement in body awareness and much greater attention to detail. The atmosphere of the class was relaxed, but at the same time there was considerable structure.

From March to June, the children continued to work on the Peabody and Distar programs to strengthen their language skills, but at the same time, most were engaged in reading, writing and arithmetic. To avoid complete ethnic separation, the East Indian pupils were integrated with children from regular classes for non-academic subjects using a "buddy" system.

In mid-June, Mrs. Sandhu and the children hosted an East Indian luncheon for members of the committee that had planned the program. The amount of verbalization and self-assuredness exhibited by the children clearly indicated great improvement since September in the ability to comprehend and to speak English and to understand the western way of life.

4. Comparison with the performance of a control group

The performance of experimental and control groups is summarized in Table I. For each test, scores of the matched pairs are listed together. For each instrument that was used as a pre- and post-measure, there is a listing of both scores together with the gain during the school year.

(a) Scholastic aptitude

Three subtests from the Arthur Point Scale were administered early in the fall term to members of both groups. On the Porteus Maze Test, the experimental group had a mean score of 6.8 while the control group had a mean of 7.9. The difference was not statistically significant.

On the Knox Cube Test, the mean score for the experimental group was 6.6; for the control group it was 6.8. The difference was not statistically significant.

On the Seguin Form Board, the mean score for the experimental group was 26.6; for the control group it was 22.1. The difference was not statistically significant.

TABLE I: SUMMARY OF SCORES FOR EXPERIMENTAL AND CONTROL PUPILS IN SCHOLASTIC APTITUDE, SELF CONCEPT AND VOCABULARY.

	SCHOLASTIC APTITUDE						SELF-CONCEPT			VOCABULARY							
	Arthur Point Scale			Columbia Mental Maturity			Pictorial Self-Concept Scale			Peabody Picture Vocabulary Test			Stanford Binet Vocabulary Test			Gates-MacGinitie	
Pupil	Porteus Maze	Knox Cube	Seguin Form Board	Raw Score	M.A.	I.Q.	Pre	Post	Gain	Pre	Post	Gain	Pre	Post	Gain	Word Recognition	Vocabulary
E1	4.5	4.0	37.7	52	5-9	87	52.5	72.1	19.6	13	41	28	2	5	3	13	
C1	4.5	5.5	23.0	65	6-10	100	60.1	60.8	0.7	27	44	17	1	5	4	23	
E2	5.0	2.5	3.70	41	5-0	67	48.8	65.2	16.4	9	27	18	1	5	4	0	
C2	7.5	5.5	21.0	62	6-6	88	57.6	74.2	16.6	28	50	22	2	4	2	24	
E3	9.5	11.0	24.4	66	7-0	93	50.3	81.5	31.2	12	40	28	1	3	2	1	
C3	4.5	5.0	23.0	51	5-8	72	45.5	59.7	14.2	0	29	29	0	2	2	17	
E4	5.0	5.5	58.4	41	5-0	79	62.9	56.6	-6.3	0	35	35	0	3	3	16	
C4	4.5	3.5	37.0	35	4-8	86	47.5	57.0	9.5	1	18	17	0	0	0	0	
E5	7.0	8.0	21.8	57	6-1	74	56.9	67.2	10.3	11	43	32	0	4	4	22	
C5	6.5	6.5	22.4	68	7-3	88	49.6	67.8	18.2	23	40	17	1	3	2	24	
E6	7.0	5.0	24.8	48	5-5	82	57.1	47.1	-10.0	36	34	-2	0	3	3	18	
C6	12.0	11.0	22.0	66	7-0	106	56.2	65.6	9.4	43	50	7	3	8	5	24	
E7	5.5	5.0	36.7	54	5-10	89	48.9	74.2	25.3	33	51	18	4	6	2	12	
C7	7.0	3.5	27.0	66	7-0	106	56.8	73.1	16.3	30	44	14	1	3	2	21	
E8	6.0	7.5	29.6	53	5-9	81	54.3	51.5	-2.8	19	44	25	0	3	3	10	
C8	7.0	8.0	20.2	62	6-6	98	71.2	57.5	-13.7	48	62	14	6	8	2	24	
E9	6.5	8.0	23.5	58	6-2	82	65.9	72.6	6.7	41	54	13	4	8	4		25
C9	10.0	5.5	20.0	61	6-5	86	47.0	50.6	3.6	48	49	1	4	8	4		45
E10	8.0	5.0	25.2	59	6-3	71	56.1	62.5	6.4	40	58	18	3	7	4		29
C10	7.0	8.5	20.0	69	7-4	86	63.8	67.9	4.1	38	47	9	3	5	2		44

TABLE I: SUMMARY OF SCORES FOR EXPERIMENTAL AND CONTROL PUPILS IN SCHOLASTIC APTITUDE, SELF CONCEPT AND VOCABULARY. (Continued)

	SCHOLASTIC APTITUDE						SELF-CONCEPT			VOCABULARY							
	Arthur Point Scale			Columbia Mental Maturity			Pictorial Self-Concept Scale			Peabody Picture Vocabulary Test			Stanford Binet Vocabulary Test			Gates MacGinitie	
Pupil	Porteus Maze	Knox Cube	Seguin Form Board	Raw Score	M.A.	I.Q.	Pre	Post	Gain	Pre	Post	Gain	Pre	Post	Gain	Word Recognition	Vocabulary
E11	7.0	11.0	25.7	68	7-3	84	72.7	73.0	0.3	40	43	3	3	5	2		41
C11	9.0	8.0	20.0	64	6-9	72	58.2	53.1	-5.1	38	46	8	4	6	2		45
E12	7.0	4.0	23.4	65	6-10	91	56.2	64.5	8.3	7	40	33	0	3	3	8	
C12	12.0	4.5	22.0	57	6-1	79	50.3	63.2	12.9	17	45	28	0	2	2	24	
E13	4.5	3.5	24.2	55	5-11	65	71.3	71.6	0.3	25	39	14	0	5	5		41
C13	11.0	11.5	15.0	77	9-1	100	59.4	60.0	0.6	56	69	13	11	12	1		48
E14	7.5	8.0	21.6	59	6-3	62	59.7	65.8	6.1	27	45	18	1	5	4		30
C14	7.0	5.5	16.1	66	7-0	68	61.8	64.2	2.4	42	47	5	3	2	-1		30
E15	10.0	11.0	19.0	55	5-11	59	55.8	69.8	14.0	26	40	14	2	3	1		21
C15	8.5	10.5	23.0	65	6-10	73	50.1	57.5	7.4	54	62	8	8	10	2		47
Exp. Mean	6.8	6.6	26.6	55.4	5-11	78	58.0	66.3	8.4	22.6	42.3	19.7	1.4	4.5	3.1	11.1	31.2
Con. Mean	7.9	6.8	22.1	62.3	6-7	87	55.7	62.1	6.5	32.9	46.8	13.9	3.1	5.2	2.1	20.1	43.2
t'' Value	1.54	0.23	1.38	2.15*					0.51			1.66			2.26*	2.51*	2.78*

Legend: * - significant at .05 level.

TABLE I: (Continued) SUMMARY OF SCORES FOR EXPERIMENTAL AND CONTROL PUPILS ON TESTS OF CONCEPTUAL DEVELOPMENT AND READING ABILITY.

	CONCEPTUAL DEVELOPMENT											READING ABILITY											
	DRAW-A-MAN			BINET RESPONSE TO PICTURES								READING SKILLS TEST									READING PRIMARY A		
				Enumeration			Description			Interpretation													
Pupil	Pre	Post	Gain	Pre	Post	Gain	Pre	Post	Gain	Pre	Post	Gain	Listening Comprehension	Auditory Discrimination	Visual Discrimination	Following Directions	Letter Recognition	Visual-Motor Coordination	Auditory Blending	Word Recognition	Weighted Stanine Score	Vocabulary	Comprehension	Total
E1	9	14	5	6	7	1	0	0	0	0	0	0	11	14	18	5	17	14	4	13	55			
C1	18	14	-4	4	3	-1	0	4	4	0	0	0	12	17	24	11	16	19	12	23	76			
E2	0	12	12	6	5	-1	0	2	2	0	2	2	3	9	6	4	7	9	7	0	34			
C2	16	14	-2	8	15	7	1	4	3	0	0	0	11	21	21	10	18	17	13	24	82			
E3	10	21	11	1	11	10	0	1	1	0	1	1	9	5	6	3	16	16	4	1	43			
C3	7	15	8	2	5	3	0	0	0	0	0	0	6	11	9	5	18	14	6	17	51			
E4	5	15	10	0	9	9	0	0	0	0	0	0	10	19	22	8	18	15	18	16	78			
C4	5	11	6	0	6	6	0	3	3	0	0	0	0	3	1	0	4	5	3	0	20			
E5	15	24	9	4	3	-1	0	2	2	0	1	1	9	20	24	8	18	15	7	22	77			
C5	12	20	8	6	6	0	0	0	0	0	0	0	9	19	24	8	18	14	12	24	73			
E6	10	17	7	4	8	4	0	3	3	0	0	0	11	17	13	11	11	16	8	18	59			
C6	11	20	9	4	3	-1	1	3	2	2	0	-2	13	20	23	8	18	15	10	24	79			
E7	15	14	-1	7	22	15	1	0	-1	0	0	0	14	19	17	10	18	15	11	12	74			
C7	13	19	6	4	3	-1	1	2	1	0	0	0	15	21	23	7	14	14	9	21	72			
E8	12	13	1	4	8	4	2	8	6	0	0	0	10	9	20	6	13	16	7	10	55			
C8	8	9	1	3	3	0	2	1	-1	0	0	0	16	20	23	12	17	19	14	24	86			

TABLE I: (Continued) SUMMARY OF SCORES FOR EXPERIMENTAL AND CONTROL PUPILS ON TESTS OF CONCEPTUAL DEVELOPMENT AND READING ABILITY.

	CONCEPTUAL DEVELOPMENT												READING ABILITY											
	DRAW-A-MAN			BINET RESPONSE TO PICTURES									READINESS SKILLS TEST										READING PRIMARY A		
				Enumeration			Description			Interpretation															
Pupil	Pre	Post	Gain	Pre	Post	Gain	Pre	Post	Gain	Pre	Post	Gain	Listening Comprehension	Auditory Discrimination	Visual Discrimination	Following Directions	Letter Recognition	Visual-Motor Coordination	Auditory Blending	Word Recognition	Weighted Stanine Score		Vocabulary	Comprehension	Total
E9	16	17	1	7	17	10	5	2	-3	0	0	0											25	15	40
C9	22	23	1	10	6	-4	1	7	6	0	0	0											45	30	75
E10	17	15	-2	4	16	12	1	7	6	1	0	-1											29	17	46
C10	17	17	0	7	1	-6	0	2	2	0	1	1											44	32	76
E11	16	24	8	9	19	10	0	3	3	0	0	0											41	21	62
C11	14	12	-2	4	12	8	3	1	-2	0	0	0											45	30	75
E12	12	15	3	4	12	8	0	1	1	0	0	0	9	19	20	7	18	15	4	8	66				
C12	12	20	8	1	2	1	0	2	2	0	1	1	10	17	23	5	18	14	8	24	68				
E13	17	17	0	4	12	8	0	7	7	0	1	1											41	17	58
C13	17	18	1	4	5	1	2	4	2	0	1	1											48	33	81
E14	19	21	2	7	12	5	0	0	0	0	0	0											30	12	42
C14	15	22	7	5	2	-3	2	3	1	0	0	0											30	19	49
E15	15	17	2	6	10	4	0	8	8	0	0	0											21	12	33
C15	11	21	10	7	8	1	5	6	1	0	1	1											47	33	80
Exp. Mean	12.5	17.1	4.5	4.9	11.4	6.5	0.6	2.9	2.3	0.1	0.3	.27	9.6	14.6	16.2	6.9	15.1	14.6	7.8	11.1	60.1		31.2	15.7	46.8
Con. Mean	13.2	17.0	3.8	4.6	5.3	0.7	1.2	2.8	1.6	0.1	0.3	.13	10.2	16.6	19.0	7.3	15.7	14.6	9.7	20.1	68.0		43.2	29.5	72.7
"t" Value			0.43			3.65**			0.76			0.50	0.35	0.74	0.79	0.29	0.28	0.00	0.99	2.51*	0.92		2.78	5.35**	

Legend: * - significant at .05 level
** - significant at .01 level

The examiner was not satisfied that all members of both groups had completely understood the tasks that they were to perform. On the Seguin Form Board, which is a speed test, the East Indian children were not motivated to work quickly. The range of scores was limited and many of the pupils had scores for which there was no corresponding value on the point scale. For these reasons the researchers chose a second instrument for the measure of scholastic aptitude.

The Columbia Mental Maturity Scale was given to members of both groups early in the fall term and it appeared to be a more suitable test. The average score for the control group was significantly higher than that of the experimental group. (The experimental group mean was 55.4; the control group mean was 62.3. The "t" value of 2.15 is significant at the .05 level.)

(b) Self-Concept

The Pictorial Self-Concept Scale for Children was given to members of both groups in February and again in late May. For each group the mean gain between February and May was calculated. The experimental group made a gain of 8.4 points; the control group, 6.5 points. The "t" value of 0.51 was not statistically significant.

(c) Vocabulary Development

The Peabody Picture Vocabulary Test was administered to members of both groups early in the fall term and again in late May. The gains throughout the school year were compared. Members of the experimental group made an average gain of 19.7 points; the control group, 13.9 points. The "t" value of 1.66 was not statistically significant. The experimental group had lower raw scores on both the pre-test and post-test than did the control group.

The vocabulary subtest of the Stanford-Binet Intelligence Scale was administered to members of both groups early in the fall term and again in May. The average gain of the experimental group (3.1) was significantly higher than that of the control group (2.1). The "t" value of 2.26 was significant at the .05 level.

The word recognition subtest of the Gates-MacGinitie Readiness Skills Test was given to nine of the pairs. Members of the control group scored significantly higher (20.1) than the experimental group (11.1). The "t" value of 2.51 was significant at the .05 level.

The vocabulary subtest of the Gates-MacGinitie Reading Test, Primary A, was given to the other six pairs. The mean score of the control group (43.2) was significantly higher than that for the experimental group (31.2) when the difference was tested for significance with the Student "t" Test. However, when allowance was made for differences in scholastic aptitude, using the Columbia Mental Maturity Test scores as the covariate, there was no significant difference between the performance of the two groups.

(d) Conceptual Development

The Goodenough Draw-A-Man Test was given to both groups early in the Fall term and again in late May. Members of the experimental group made a somewhat greater gain (4. 5) than did members of the control group (3. 8). The difference between these gains was not statistically significant ("t" = 0. 43).

The "response to pictures" subtest of the Stanford-Binet Intelligence Scale was administered to pupils in both groups early in the Fall term and again late in May. When the responses were scored in terms of the enumeration of details, the experimental group made a significantly greater gain (6. 5) than did the control group (0. 7). The "t" value of 3. 65 was significant at the . 01 level.

When the responses to the pictures were scored in terms of the pupil's description, the average gain of the experimental group (2. 3) was somewhat greater than that of the control group (1. 6), but the difference was not statistically significant ("t" = 0. 76).

When the responses were scored in terms of pupil's interpretation, the average gain in the experimental group (0. 27) was slightly larger than that of the control group (0. 13). The "t" value (0. 50) was not statistically significant.

(e) Progress in Reading

The first seven subtests of the Gates-MacGinitie Readiness Skills Test may be considered to be a battery of readiness tests. They were administered in May to the nine members of the experimental group and their matched controls, all of whom were judged to be not ready for a formal reading test. Their scores on these subtests are listed in Table I. There were no significant differences between the experimental and control groups in mean scores for these seven subtests.

The subtest scores were transformed to stanines, and for each pupil a weighted stanine score was calculated. The mean weighted stanine score for the experimental group was 60. 1; for the control group it was 68. 0. The difference was not statistically significant ("t" = 0. 92).

The remaining six pairs were given the Gates-MacGinitie Reading Test, Primary A, Form I, in June, 1973. The results of the vocabulary subtest have been reported on page 16. On the comprehension subtest the control group scored significantly higher. The mean for the control group was 29. 5; for the experimental group, 15. 7. The difference was significant at the . 01 level. When scores on the Columbia Mental Maturity Scale were used in an analysis of covariance, the difference between the two groups on the comprehension subtest remained significant at the . 01 level.

When the two subtests of the Gates-MacGinitie Reading Test were combined, and the mean scores were put to an analysis of covariance, using the Columbia Mental Maturity Scale as the covariate, the mean score for the experimental group, 46.8, was found to be not significantly different from that of the control group, 72.7.

V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The report reviews the need to provide a special program to assist newly-arrived immigrant children from the Punjab that led in the Fall of 1971 to a recommendation on the part of the Vancouver School Board to establish for a period of at least three years an experimental class for these East Indian children, where the language of instruction would be both Punjabi and English. Unlike other provisions for primary-aged New Canadian pupils, this was a homogeneous class enrolling twenty pupils, all of East Indian origin and between five and eight years of age. The class was under the direction of an East Indian teacher who was free to use Punjabi to explain any concept when she felt this was desirable. Throughout the year there was a careful documentation of the progress made by these pupils. Their language development was compared with that of East Indian pupils in regular classes. The evaluation attempted to assess the extent to which each of the objectives was attained.

Throughout the school year the teacher kept a careful record of attendance, punctuality and progress of each pupil. Her anecdotal record included comments about health, physical development, social skills, self-care, oral expression, reading ability, writing ability, arithmetic skills, art work, and musical aptitude. The program was also evaluated in terms of the number of pupils in the class whose progress in English was such that they would merit assignment to a regular primary class by September. An independent observer reported on the progress made by pupils throughout the school year.

Comparisons between members of this group and those in a control group were directed to measures of scholastic aptitude, measures of self-concept, vocabulary development, conceptual development, and reading ability.

Conclusions

Of the original group, fifteen pupils remained as class members for the entire school year. Their attendance rate was 97%, which was considerably better than that of the other classes in the Moberly Primary Annex. On the other hand, members of this primary New Canadian class were late somewhat more often than the average.

Samples of work that had been filed in pupils' folders throughout the year indicated progress. This was particularly noticeable in printing skills and in artistic ability.

Tape recordings of conversations revealed the marked improvement that pupils had made in oral expression throughout the year. The teacher kept extensive notes on many aspects of progress throughout the year. In June she was asked to transform her notes to a score on a rating scale. Comparisons were made between ratings given in June with those made in October. The results indicated that the pupils had made significant gains in social growth, fluency in English, printing skills, reading ability, and arithmetic skills.

Ten pupils had made sufficient progress in English to merit assignment to a regular primary class by September, 1973.

The evaluation by an objective observer indicates that great improvement had been made throughout the year in the ability of these pupils to comprehend and to speak English and to understand the western way of life.

The performance of pupils in the experimental class was compared with that of a control group of matched East Indian children in regular primary classes of other schools on the Southern Slope. There was no difference between the performance of the two groups on three subtests from the Arthur Point Scale of Performance.

Members of the control group scored significantly higher on the Columbia Mental Maturity Scale. One might infer that the control group had a somewhat greater ability to perform well in school. Accordingly, scores on the Columbia Mental Maturity Scale were used in an analysis of covariance of some of the achievement measures.

There was no difference between the two groups in gains in self-concept but the experimental group had the higher mean score in February and in May.

In terms of vocabulary development as measured by the Peabody Picture Vocabulary Test, the experimental group had lower scores than did the control group, but throughout the school year the gains made by the two groups were not significantly different. Vocabulary development as assessed by the Stanford-Binet Intelligence Scale indicated a greater gain by members of the experimental group. However, it should be noted that both at the beginning of the school year and at the end, the control group had considerably higher scores.

At the end of the school year, those pupils who were not ready for a formal reading test were given a word recognition test on which the control group performed better than the experimental group.

Similarly, those who were reading were given a vocabulary test and again, members of the control group scored significantly higher than pupils in the experimental group. However, when allowance was made for differences in scholastic aptitude, using the Columbia Mental Maturity Test scores as a covariate, no significant difference was found between the two groups.

The conceptual development of members of the experimental group was not significantly greater than that for pupils in the control group, except in regard to the ability to enumerate details in a picture. Here the experimental group made a greater gain than did the control group.

When progress in reading was assessed, no difference was found between the performance of experimental and control groups except in comprehension where the control pupils excelled.

The superior level of the control group in vocabulary development and in reading comprehension may be attributed not only to their greater mental maturity (as assessed by the Columbia scale) but also to the earlier introduction to formal reading in the regular primary classes. However, this disparity may well be reduced if the experimental pupils continue to gain in vocabulary at their present faster pace.

The Punjabi-English Class appears to be providing a good learning environment for newly-arrived immigrant children from the Punjab. The bilingualism of the teacher, her patient understanding of the pupils' problems, the smaller class size, the assistance of a volunteer-aide, and the special materials and equipment facilitate the greater provision for individual differences.

The class appears to be promoting the personality development of its pupils, particularly in social skills and oral expression. The program is achieving its objective of developing sufficient facility in English so that more than one-half of the pupils are being assigned to regular primary classes by September, 1973.

The writers believe that it would be premature to attempt at this time to draw any conclusion about the effect of the program on the pupils' understanding and appreciation of Canadian culture.

Recommendations

The writers respectfully recommend:

(1) That the program be continued as planned for the three year period.

(2) That cumulative and comprehensive evaluation continue to be an integral part of the plan.

(3) That consideration be given to using in the evaluation a video-tape recording to document the social growth and language development of pupils.

(4) That, insofar as it is feasible, the pupils be introduced earlier into the "learn-to-read" process.

(5) That the staff continue to seek and to encourage greater parental involvement in the school.

(6) That the "buddy" system be started earlier in the school year and be extended into all parts of the program.

(7) That, insofar as it is feasible, advantage be taken of all opportunities for integration with other classes.

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APPENDIX A

Committee to Plan and Develop the Program

Dr. S. W. Martin, Director of Instruction (Chairman)

Mr. W. W. Damen, Principal of Moberly Elementary School
Mrs. C. R. Buckley, Head-teacher, Moberly Primary Annex
Mrs. S. S. Sandhu, Teacher of the Experimental Class at Moberly Primary Annex
Miss S. Berar, Teacher at Moberly Elementary School
Mrs. C. Taylor, Coordinator of Kindergarten and Primary Education
Mr. M. D. McPhee, Coordinator of Special Education
Miss J. R. Lewis, Consultant in Special Education
Dr. F. Hawkhead, Coordinator of Psychological Services
Miss Janet Moody, Psychological Examiner
Mr. K. R. G. Grant, Psychological Examiner
Mrs. R. Sidhu*, a parent, bilingual in English and Punjabi
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(* Mrs. Sidhu moved out of the Moberly district during the Fall term.)